

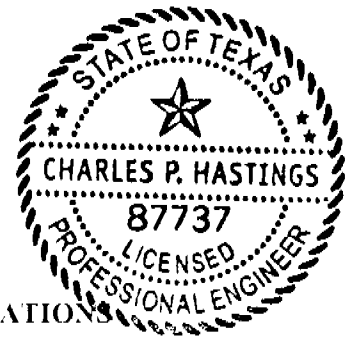
April 7, 2005
ADDENDUM NO. 2

TO

PLANS, CONTRACT DOCUMENTS, AND TECHNICAL SPECIFICATIONS
DATED February 2005

FOR

WASHINGTON/JEFFERSON DRAINAGE PROJECT 2005



1. The addendum shall be considered to be part of the above referenced project and shall be included in the Contractor bid submitted to the City as described in Item 060 "Advertisement for Bid" of the original contract documents.
2. **ADDENDUM No. 2 REPLACES ADDENDUM No. 1. ALL ITEMS LISTED IN ADDENDUM No. 1 ARE NULL AND VOID AS THEY HAVE BECOME INAPPLICABLE. The contractor need only acknowledge Addendum No. 2 on page 070-4 of the contract documents (attached).**
3. Bids opened on March 16, 2005 were rejected. The construction plans had numerous errors. The plans have been re-engineered with slight alignment changes, correct existing utility locations (water, sewer and existing storm drain), quantities revised, elimination of the massive outfall headwall, some inlets relocated, extended time on the contract, etc. (all listed below). The engineer's estimate has been recalculated and revised to \$625,000.
4. Section 070-1 Construction substantial completion time will be 150 calendar days and 30 calendar days after for final completion (see attached Contract Documents).
5. Revised Contract Sum now has 35 bid items (original bidding documents only had 22 bid items). **Please review carefully, many items that were formerly subsidiary are now pay items.**
6. All item numbers shown on Sheets 7-10 in the sheet totals are references to the appropriate TxDOT item found in Texas Highway Department Specifications 2004 maroon handbook.
7. Sheet 2 has been revised showing geotechnical compaction testing for entire job at a depth of 2' from the surface every 100 linear feet (total of 25 tests) – retesting due to failed compaction tests will be paid for by the contractor at his own expense.
8. Sheet 2: embedment detail - crushed limestone is only required to the spring line of the storm pipe and above the storm pipe in special situations as indicated where existing utilities are within 12" of top of storm drain pipe.
9. Sheet 2: asphalt pavement repair consists of 4" thick of Limestone Rock Asphalt (LRA) pavement and 2" of Type 'D' HMAC.

10. Sheet 7: existing utilities (water, sewer and storm drain) shown in correct location; 1 Type Y-1 inlet removed; DI-A70 and DI-A71 relocated to avoid sidewalk ramps; existing storm drain brick manhole, 12" RCP and grate inlet added as items to be removed.
11. Sheet 8: existing utilities (water, sewer and storm drain) shown in correct location; Tie-in to existing 24" CMP shown more clearly and bid item added; removal of approximately 20 L.F. of existing 3'x2' box culvert shown and bid item added; deflection of storm drain pipe from stations 24+92 to 26+16 shown; JB-A38 moved to station 26+76 and tie-in of 2-10" storm pipes added as bid item.
12. Sheet 9: existing utilities (water, sewer and storm drain) shown in correct location; Relocation of DI-A36 to avoid sidewalk ramp and additional pipe shown as well as plugging of 18"x18" grate inlet added as bid item; removal of 24"x24" grate inlet shown and added as bid item.
13. Sheet 10: existing utilities (water, sewer and storm drain) shown in correct location; headwall/retaining wall item removed – replaced with a safety end treatment; concrete safety end treatment added as bid item; 35 linear feet of standard guardrail added as bid item; gabion mattress thickness changed to 12" thick – 4 to 6 inch stones to be used.
14. Sheet 13: Delete in it entirety. The headwall has been deleted, see Sheet 10 for the new safety end treatment that is to be installed instead.
15. Jefferson street is extra wide and will accommodate 2-way traffic during construction.
16. Washington Street may be closed to thru-traffic with detours.
17. Water Street may be closed to thru-traffic with detours while near and/or in the intersection with Washington.
18. City of Kerrville Street department will re-stripe Jefferson, Washington and Water Streets as necessary at the end of the project.
19. There are three known sanitary sewer services (clay) that will likely fall apart under its own weight when the ditch is cut for the storm drain. A bid item has been added in the contract documents for the contractor to replace clay services with PVC and Fernco's, to be sure all services were accounted for the item quantity was listed as ten even though only three are anticipated. The location of these services will be marked by the city prior to the contractor commencing construction.
20. All staking of horizontal locations for storm drainage will be done by the city engineer to expedite the project. The contractor will be responsible for vertical control, benchmarks are noted on the plans and will double checked by city staff.
21. Rock excavation is not anticipated on this job, however, a bid item for rock excavation has been added in order to establish a unit bid price.

Please be aware that when completing the contract form (Item 070), that section 10, "Addenda" should be signed and dated.

Section 060

ADVERTISEMENT FOR BID

Sealed bids for the **Washington/Jefferson Drainage Project 2005** will be received by the office of the city clerk, City Hall, 800 Junction Highway, Kerrville, Texas 78028 until **3:00 p.m. on April 13, 2005** and will then be publicly opened and read aloud in the Council Chambers at City Hall.

The date and time of opening the bids shall be clearly marked on the outside of the sealed envelope. No bids will be accepted after 3:00 p.m. on the date of bid opening.

The bidding documents, plans, specifications, etc. may be examined by all bidders at the engineering office at City Hall, 800 Junction Highway, Kerrville, Texas, 78028, 830-792-8312, or on the City's website www.kerrville.org and free copies (limit one per contractor) are available at City Hall and will be mailed upon request.

Each bid must be accompanied by a certified check, cashier's check, or bid bond payable to the City of Kerrville, Texas, in the amount of ten percent (10%) of the amount bid as a guarantee that the contract and bond will be entered into within ten (10) days after the award is made.

A performance/payment bond in the amount of one hundred percent (100%) of the total contract price will be required.

No bidder may withdraw his bid within sixty (60) days after the actual date of the opening.

A pre-bid conference shall be held at 3:00 PM on April 5, 2005 in Meeting Room One at City Hall. **All questions regarding this project shall be directed to the City Engineer.**

Advertised: March 25, 2005
 April 1, 2005

Pre-Bid Meeting: 3:00 PM, April 5, 2005

Bid Opening: 3:00 PM, April 13, 2005

Bid Award: April 20, 2005

Section 070

CITY OF KERRVILLE

CONSTRUCTION CONTRACT

This agreement made this day by and between the City of Kerrville, Texas, called "City," and the undersigned "Contractor" as follows:

1. THE WORK

The Contractor shall perform all the work as required by this contract for:

Base Bid

Installation of inlets, reinforced concrete pipe, drainage outlets and pavement repair as detailed in Section 090 "Description of Work".

The following are incorporated herein:

- a. General Provisions
- b. Technical Specifications
- c. Addenda issued prior to receipt of Bid
- d. Plans
- e. Instructions to Bidders
- f. Proposal

Some of such documents may not be physically attached hereto but are on file at City Hall, and copies may be obtained upon request.

2. TIME

Construction substantial completion time will be 150 calendar days and 30 calendar days after for final completion from the date of written notice to proceed. Working days are defined in specification section 123.20. The project shall not be considered complete until all pipeline, drains and streets have been accepted and are operational and performing to their intended purposes. The Contractor's obligations to the project; however, are not complete and retainage will not be released until all disturbed areas have been repaired to like previous condition to the satisfaction of the City Engineer.

3. LIQUIDATED DAMAGES

Liquidated damages are hereby established for work which is not substantially complete in the amount of Three Hundred Dollars (\$300.00) per working day for each working day after the date established in the Notice to Proceed. The City may offset any such liquidated damages against any sums from time to time due by the City to Contractor.

The completion time assumes that fifteen percent of the working days are "bad weather days," days on which the work cannot proceed; therefore, the time for completion shall not be extended on account of bad weather until the said number of assumed "bad weather days" has been exceeded.

The time for completion shall not be extended except by written memorandum executed by the Contractor and the City Manager. Contractor shall make written application to the City not later than ten (10) days after the day, event, or cause claimed by Contractor to be a delay. Failure to make such written claim within such time shall result in a waiver by Contractor of an extension based on those particular days, events, or causes. If, for example, this contract assumes twenty (20) bad weather days and Contractor desired a one-day extension for the twenty-first day of rain, Contractor shall make a written claim not later than ten (10) days after the occurrence of such twenty-first day.

The said amount per day is not a penalty but an agreed amount of actual damages which are difficult to calculate. Such damages include loss of staff time, answering complaints by citizens who have been inconvenienced by the work, City Council time, loss of use, and other damages difficult to reasonably anticipate or calculate.

4. PAYMENTS

The City shall pay the Contractor ninety-five percent (95%) of the portion of Contract Sum properly allocable to labor, materials, and equipment incorporated in the Work and ninety-five percent (95%) of the portion of the Contract Sum properly allocable to materials and equipment suitably stored at the site or at some other location agreed upon in writing, less the aggregate of previous payments made by the City, and, upon substantial completion of the entire Work, a sum sufficient to increase the total payments to ninety-five percent (95%) of the Contract Sum. All retainages from progress payments shall be withheld without liability for interest. Upon acceptance, the City shall make payment to Contractor such that one hundred percent (100%) of the Contract Sum has been paid.

The City may choose to award a contract for the amount of the base bid plus no or any combination of additive alternates.

5. LIABILITY INDEMNITY

THE CONTRACTOR AGREES TO INDEMNIFY, DEFEND, AND HOLD HARMLESS THE CITY OF KERRVILLE, TEXAS, AND ALL OF THEIR RESPECTIVE OFFICERS, AGENTS AND EMPLOYEES FROM ALL SUITS, ACTIONS, CLAIMS, DAMAGES, PERSONAL INJURIES, LOSSES, PROPERTY DAMAGES, AND EXPENSES OF ANY CHARACTER WHATSOEVER, INCLUDING ATTORNEY'S FEES BROUGHT FOR OR ON ACCOUNT OF ANY INJURIES OF DAMAGES RECEIVED OR SUSTAINED BY ANY PERSON OR PROPERTY ON ACCOUNT OF ANY NEGLIGENT ACT OF THE CONTRACTOR, THE CITY OF KERRVILLE, TEXAS, OR ANY OF THEIR RESPECTIVE OFFICERS, EMPLOYEES, AGENTS, REPRESENTATIVES, OR SUBCONTRACTORS IN THE EXECUTION, SUPERVISION, AND OPERATIONS GROWING OUT OF OR IN ANY WAY CONNECTED WITH THE PERFORMANCE OF THIS AGREEMENT, WHETHER OR NOT THE ACT OR OMISSION OF THE CITY OR ANY OF THEIR RESPECTIVE OFFICERS, EMPLOYEES, OR AGENTS WAS THE SOLE PROXIMATE CAUSE OF THE INJURY OR DAMAGE OR A PROXIMATE CAUSE JOINTLY AND CONCURRENTLY WITH THE NEGLIGENCE OF THE CONTRACTOR OR ITS OFFICERS, EMPLOYEES, AGENTS, CONTRACTORS, OR SUBCONTRACTORS, IN THE EXECUTION, SUPERVISION AND OPERATIONS GROWING OUT OF OR IN ANY WAY CONNECTED WITH THE PERFORMANCE OF THIS AGREEMENT.

6. LIABILITY INSURANCE

Prior to the commencement of any work and not later than fifteen (15) days following the execution of this contract, the Contractor shall furnish the City copies of paid-up policies (to the City Risk Manager/City Hall) providing Liability and Workman's Compensation Coverage as follows minimum limits):

TYPE OF INSURANCE		LIMITS
a.	Workman's Compensation covering all employees	Statutory
b.	Employer's Liability	<u>\$100,000.00</u>
c.	Comprehensive General Liability	
	Bodily Injury & Property Damage (per occurrence)	<u>\$1,000,000.00</u>
	Aggregate	<u>\$1,000,000.00</u>
	(Premises/Operations Products/Completed Operations/Independent Contractors/Contractual Liability/Coverages may not be excluded). XCU must be supplied if any exposure.	
d.	Business Automobile Liability covering owned vehicles, rented and non-owned vehicles and employee non-ownership	
	Bodily Injury Property Damage (per occurrence)	<u>\$1,000,000.00</u>
	Aggregate	<u>\$1,000,000.00</u>

The Commercial General Liability and the Automobile Liability policies shall name the City of Kerrville, Texas, as additional insured and all policies shall provide for a waiver of subrogation in favor of the City of Kerrville. The policy and any renewal certificate shall provide that the City be notified thirty (30) days prior to cancellation or modification of any coverage. Language to the effect that the company will "Endeavor" or "Attempt" to so notify the City of Kerrville is not sufficient. Renewal certificates must be received by the City at least ten (10) days prior to any cancellation date. Policies will be in effect until final acceptance or cancellation of this contract, unless otherwise specified. The City may, at its sole option, terminate this agreement and file a claim on the Contractor's bid bond if the Contractor fails to deliver the required policies and certificates within 15 days after execution of this contract.

It shall be the responsibility of the Contractor to insure that all Subcontractors comply with the same insurance requirements as the said Contractor.

7. CASUALTY INSURANCE

In the event the work includes structures or buildings susceptible to damage by fire, windstorm, or other casualty, then the Contractor before being authorized to begin work shall furnish the City a duplicate original of an insurance policy naming the City of Kerrville as an additionally insured. Such insurance shall insure both the City of Kerrville and Contractor, during the term of the work, against loss by fire, windstorm, vandalism, theft, or other casualty. Such policy shall be in the total amount of this contract.

8. QUALITY OF WORK

All work shall be of good workmanship. Contractor shall comply with all applicable City of Kerrville Codes as well as all applicable professional and technical standards. Materials shall be of first quality.

9. CHANGES AND EXTRAS

No change of this Contract, whether for additional work, additional compensation, or other, shall be effective unless prior thereto a written change order has been authorized by the City Council. Employees of the City do not have the authority to issue change orders.

10. ADDENDA

Contractor acknowledges the receipt of the following addenda:

1. Dated: _____ Acknowledged by: _____
2. Dated: _____ Acknowledged by: _____

11. CONTRACT SUM

Proposal: Contractor agrees to provide all labor, materials, and all incidentals necessary to complete "The Work" for the following Unit Prices:

ITEM NO.	APPROX. QUANTITY	UNIT	DESCRIPTION OF ITEM	UNIT PRICE	TOTAL AMOUNT
1.	1,054	CY	Structural Excavation	\$_____	\$_____
2.	6,960	CY	Structural Excavation (Trench)	\$_____	\$_____
3.	2,326	SY	Cut and Restoring Pavement (Asph)	\$_____	\$_____
4.	140	CY	Flowable Backfill to abandon 170 L.F. of existing 3'x2' box culvert.	\$_____	\$_____
5.	2,326	LF	Trench Excavation Protection	\$_____	\$_____
6.	9	CY	CL C Concrete (Safety End Treatment, Sheet 10)	\$_____	\$_____
7.	370	SY	Gabion Mattress (Galv) (18 in)	\$_____	\$_____
8.	118	LF	RC Pipe (CL III) (24")	\$_____	\$_____
9.	54	LF	RC Pipe (CL III) (30")	\$_____	\$_____
10.	488	LF	RC Pipe (CL III) (42")	\$_____	\$_____
11.	495	LF	RC Pipe (CL III) (48")	\$_____	\$_____
12.	956	LF	RC Pipe (CL III) (54")	\$_____	\$_____
13.	2	EA	Manhole (Compl) (TY 2)	\$_____	\$_____
14.	3	EA	Manhole (Compl) (TY 3)	\$_____	\$_____
15.	3	EA	Inlet (Compl) (Drop) (TY Y-1)	\$_____	\$_____
16.	1	EA	Inlet (Compl) (Drop) (TY Y-1) (Mod)	\$_____	\$_____
17.	3	EA	Inlet (Compl) (Drop) (TY Y-2)	\$_____	\$_____
18.	1	EA	Manhole (Compl) (Jct Box) (5'x 5')	\$_____	\$_____
19.	2	EA	Manhole (Compl) (Jct Box) (6'x 6')	\$_____	\$_____
20.	3	MO	Barricades, Signs and Traffic Handling	\$_____	\$_____
21.	35	LF	Guard Rail	\$_____	\$_____
22.	58	LF	Remove 12" RCP	\$_____	\$_____
23.	1	LS	Remove Brick Manhole	\$_____	\$_____
24.	2	LS	Remove 24"x24" Grate Inlet	\$_____	\$_____

ITEM NO.	APPROX. QUANTITY	UNIT	DESCRIPTION OF ITEM	UNIT PRICE	TOTAL AMOUNT
25.	10	LF	Tie 24" CMP Into MH-A40	\$ _____	\$ _____
26.	1	LS	Remove 3x2 Box and Plug	\$ _____	\$ _____
27.	1	LS	Tie 10" Pipes Into JB-A38	\$ _____	\$ _____
28.	1	LS	Remove 18"x18" Grate Inlet	\$ _____	\$ _____
29.	1	LS	Remove 24"x24" Grate Inlet	\$ _____	\$ _____
30.	25	EA	Geo-Tech Compaction Testing Every 100 LF At a Depth of 2' From Surface (Total of 25 Tests)	\$ _____	\$ _____
31.	10	EA	Replace VCP Sanitary Sewer Service w/ PVC and Ferncos (Approximately 10 LF Each)	\$ _____	\$ _____
32.	1	LS	Tie 24" RCP into Existing Curb Inlet	\$ _____	\$ _____
33.	50	CY	Rock Excavation	\$ _____	\$ _____
34.	1	LS	Mobilization, Bonds	\$ _____	\$ _____
35.	1	LS	Construction Contingency	\$15,000	\$15,000

TOTAL BID \$ _____

COMPLETED BY

DATE

Sub-Contractors:

	NAME	ADDRESS	PHONE	WORK TO BE PERFORMED
1.				
2.				
3.				

(Attach additional sheet if required)

INSURANCE AGENT

	NAME	ADDRESS	PHONE	POLICY
--	------	---------	-------	--------

1.	_____
----	-------

2.	_____
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3.	_____
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BONDING AGENT

	NAME	ADDRESS	PHONE	POLICY
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1.	_____
----	-------

2.	_____
----	-------

3.	_____
----	-------

Signed this _____ day of _____, 2005

Attest: _____ Contractor

Secretary BY: _____
(if bid by a Corporation)

SEAL

Title: _____

Business Address:

Phone: _____

Fax: _____

ACCEPTED THIS _____

day of _____, 2005

By: _____
Ron Patterson, City Manager
City of Kerrville, Texas.

ATTEST:

City Clerk

CITY SEAL

APPROVED AS TO FORM:

City Attorney

Section 075

Payment Bond

KNOW ALL MEN BY THESE PRESENTS, that _____

of _____
hereinafter called the CONTRACTOR (Principal), and _____

_____ a corporation duly organized and existing under and by virtue of the laws of the State of _____, hereinafter called the SURETY, and authorized to transact business within the State of Texas, as SURETY, are held and firmly bound unto THE CITY OF KERRVILLE, TEXAS, as OWNER (Obligee), in the sum of:

_____ DOLLARS (\$_____), lawful money of the United States of America, for the payment of which, well and truly be made to the OWNER, the CONTRACTOR and the SURETY bind themselves and each of their heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents as follows:

THE CONDITION OF THE ABOVE OBLIGATION IS SUCH THAT:

WHEREAS, the CONTRACTOR has executed and entered into a certain Contract hereto attached, with the OWNER, dated _____, 200____, for:

NOW, THEREFORE, if the CONTRACTOR shall promptly make payment to all persons, firms, and corporations furnishing materials, labor, and services used directly or indirectly by the Contractor in the prosecution of the work, as provided in the Contract Documents, and shall pay the OWNER, all loss, damage, expense, costs, including attorneys fees which the OWNER may sustain by reason of failure or default on the part of CONTRACTOR, then this obligation shall be void; otherwise it shall be and remain in full force and effect.

PROVIDED, HOWEVER, that no final settlement between the OWNER and the CONTRACTOR shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

PROVIDED, FURTHER, that this BOND is executed pursuant to the provisions of Chapter 2253 of the Texas Government Code, as amended and all liabilities of this Bond shall be determined in accordance with the provisions of said Chapter to the same extent as if it were copied at length herein.

Venue for any disputes arising from or in any way related to the performance of the obligations set forth herein shall be in Kerr County, Texas.

IN WITNESS WHEREOF, the above parties bounded together have executed this instrument this _____ day of ____, 200__, the name and corporate seal of each corporate party being hereto affixed and those presents duly signed by its undersigned representative, pursuant to authority of its governing body.

CONTRACTOR

By _____ (Seal)

Attest

SURETY

By _____ (Seal)

Attest

ATTACH POWER OF ATTORNEY

Section 080

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS, THAT _____
of _____ hereinafter called the CONTRACTOR (Principal), and
_____ a corporation duly organized and existing under and by
virtue of the laws of the State of Texas, hereinafter called the SURETY, and authorized to transact
business within the State of Texas, as SURETY, are held and firmly bound unto THE CITY OF
KERRVILLE, TEXAS as OWNER (Obligee), in the sum of:

_____ DOLLARS (\$ _____), lawful money of the United States of
America, for the payment of which, well and truly be made to the OWNER, the CONTRACTOR and
the SURETY bind themselves and each of their heirs, executors, administrators, successors, and
assigns, jointly and severally, firmly by these presents as follows:

THE CONDITION OF THE ABOVE OBLIGATION IS SUCH THAT:

WHEREAS, the CONTRACTOR has executed and entered into a certain Contract hereto attached,
with the OWNER, dated _____, 200____, for:

NOW, THEREFORE, if the CONTRACTOR shall in all things perform all the terms and conditions
of the within and foregoing Contract as provided in the Contract Documents to be by such
CONTRACTOR performed, and shall honor all claims for defective work made within ONE year
after the completion and acceptance of the foregoing Contract, and shall pay the OWNER, all loss,
damage, expense, costs, including attorneys fees which the OWNER may sustain by reason of failure
or default on the part of CONTRACTOR, then this obligation shall be void; otherwise it shall be and
remain in full force and effect.

PROVIDED, HOWEVER, that this Bond is executed pursuant to the provisions of Chapter 2253 of
the Texas Government Code as amended and all liabilities of this Bond shall be determined in
accordance with the provisions of said Chapter to the same extent as if it were copied at length
herein.

PROVIDED, FURTHER, that the SURETY, for value received, hereby stipulates and agrees that no
change, extension of time, alterations, or addition to the terms of the Contract Documents or to the
work to be performed thereunder, shall in any way affect its obligation on this bond, and it does

hereby waive notice of any such change, extension of time, alteration, or addition to the terms of the Contract Documents.

Venue for any disputes arising from or in any way related to the performance of the obligations set forth herein shall be in Kerr County, Texas.

IN WITNESS WHEREOF, the above parties bounded together have executed this instrument this _____ day of _____, 200____, the name and corporate seal of each corporate party being hereto affixed and those presents duly signed by its undersigned representative, pursuant to authority of its governing body.

CONTRACTOR

By _____ (Seal)
Its: _____ (Title)

Attest

SURETY

By _____ (Seal)
Attorney-in-Fact

ATTACH POWER OF ATTORNEY

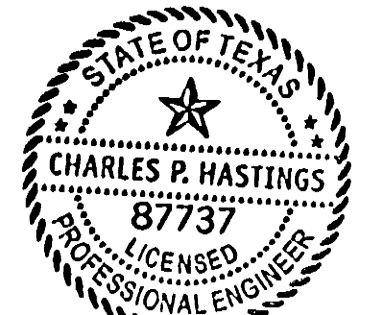
Section 090

DESCRIPTION OF WORK

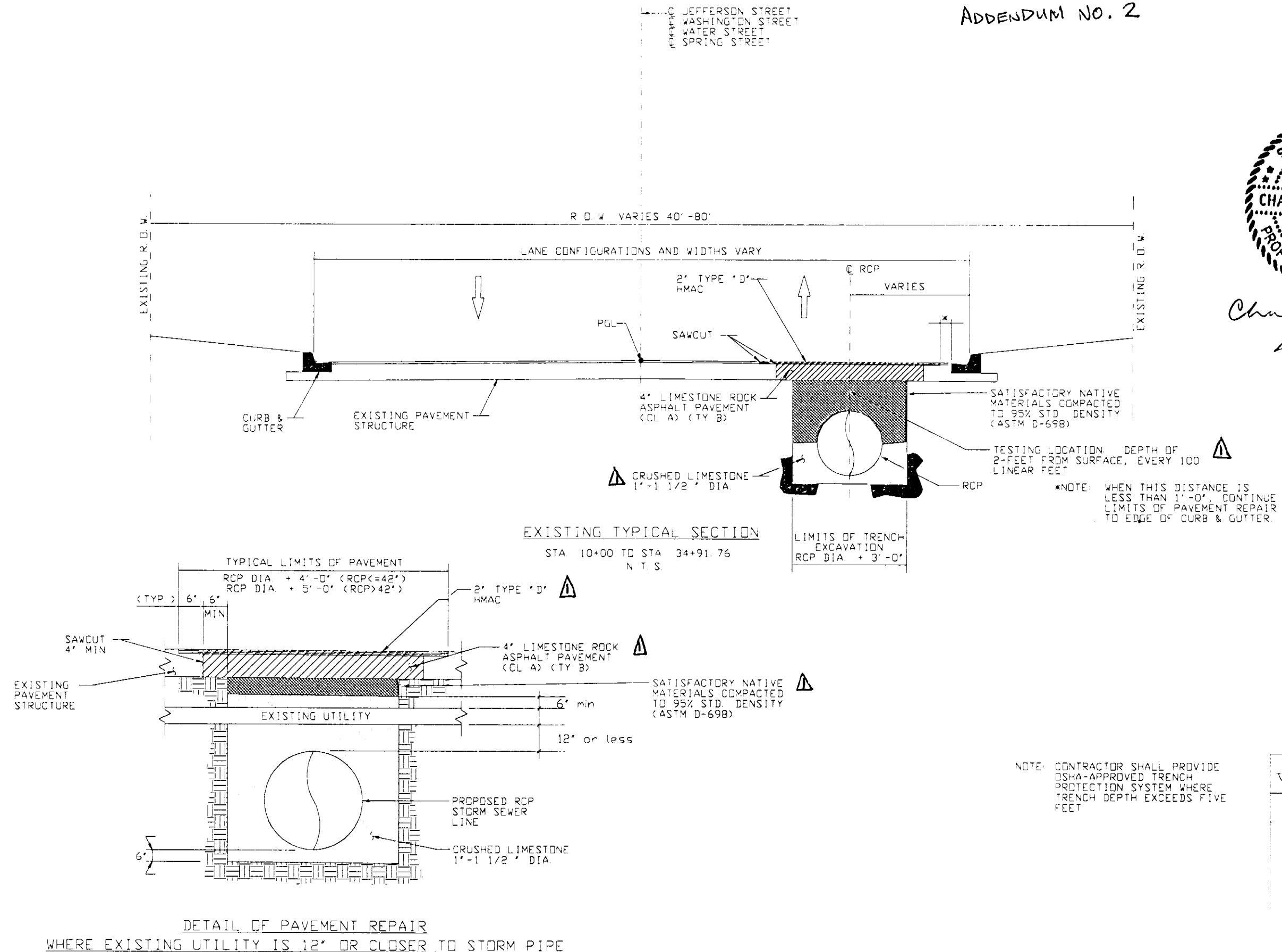
Following is a summary of work items included in the bid schedule:

1. **Jefferson St, Washington St, Water St, and Spring St.** The base bid includes the trench excavation of approx. 500 l.f. of Jefferson St. from Earl Garrett St. to Washington St., 1,000 lf. of Washington St. from Jefferson St. to Water St., 280 lf. of Water St. from Washington St. to Spring St. and 250 l.f. of Spring St. from Water St. as per the engineering contract documents.
2. **Storm Drain.** The project involves installation of approximately 2093 l.f. of storm drain pipe and related appurtenances within the limits described in item 1 above.
3. **Pavement Repair.** The project involves repair of roadway pavement as per the engineering contract documents after the placement of the storm drain pipe.
4. **Incorporate Existing Drainage System.** The project includes integration of two existing storm drain pipes at the intersection of Washington St. and SH 27. An existing 3'x 2' concrete box shall be filled with flowable backfill and capped at each end as per the engineering contract documents.
5. **Safety End Treatment.** The project includes safety end treatment the construction of at the outfall of the drainage system.
6. **Rock Gabion Mattress.** The project includes the placement of a rock gabion mattress at the outfall of the drainage system to drain the water to the bank of the Guadalupe River.

△ CHANGES MADE BY CITY ENGINEER 4/7/2005
ADDENDUM NO. 2



Charles P. Hastings
4/7/2005



LINEAR DIMENSIONS ARE IN FEET UNLESS SHOWN OTHERWISE

S&R
INFRASTRUCTURE, LTD.
Engineering Management Technology

CITY OF KERRVILLE

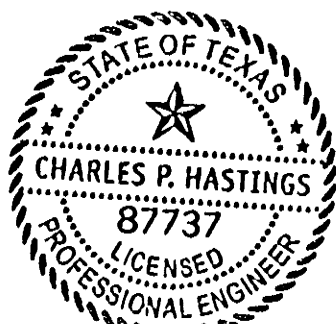
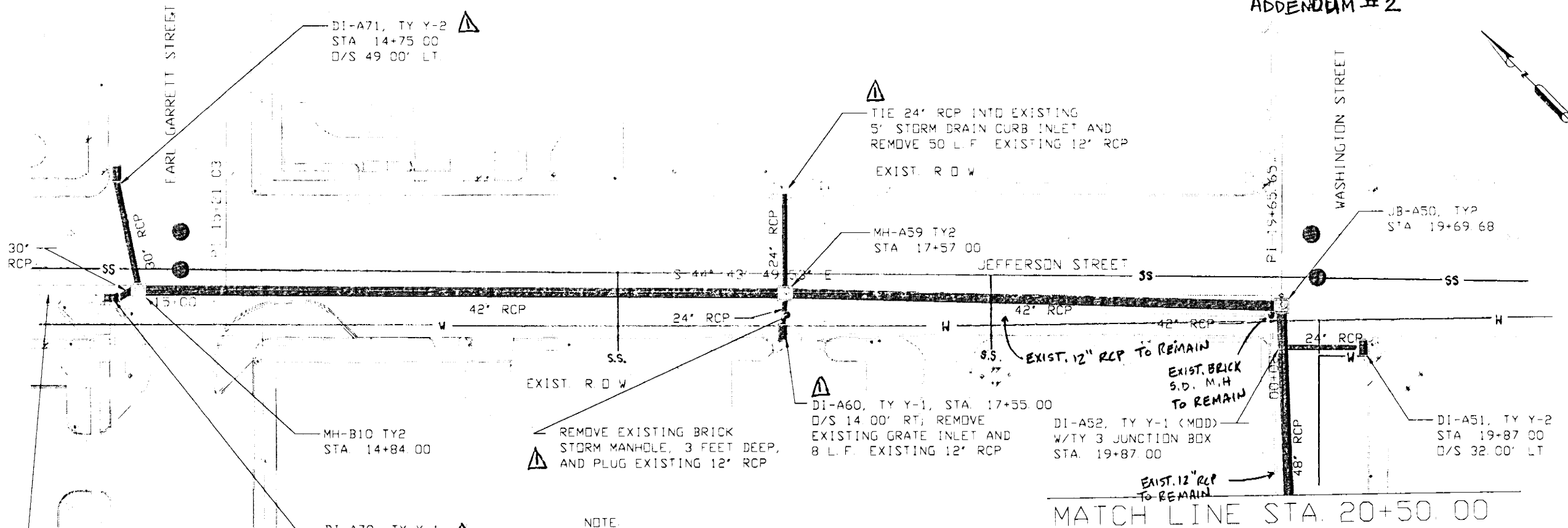
SYSTEM "A"
TYPICAL SECTIONS

DESIGNED BY: DM	CHECKED BY:	DATE: 8/24/04
DRAWN BY: RT	CHECKED BY:	DATE: 8/24/04
APPROVED BY: MCR	DATE: 8/24/04	PROJECT NO: 5432900

SHEET NO. 2

DATE: 8/24/04

CHANGES MADE BY CITY ENGINEER 4/7/2005
ADDENDUM #2

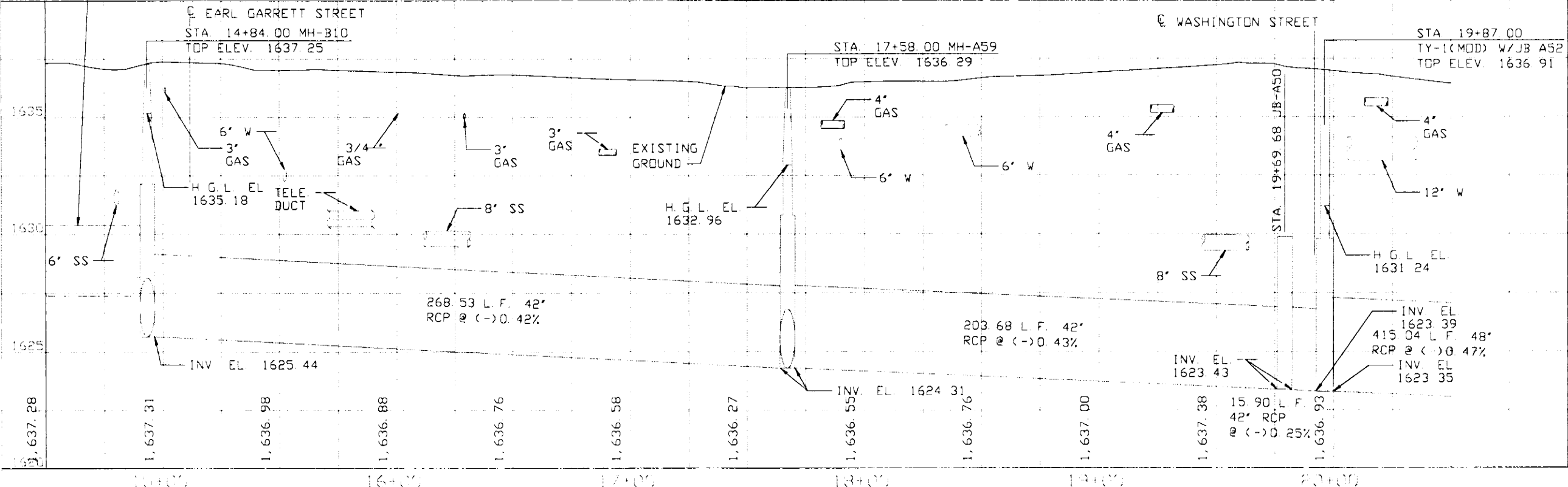


Charles P. Hastings
4/7/2005

NOTE:
RCP LOCATION HAS BEEN ADJUSTED
BASED ON UTILITY CONFLICTS
ADDITIONAL ADJUSTMENTS MAY
BE NEEDED IN THE FIELD.

NOTE:
LOCATION & DEPTH OF ALL EXISTING
UTILITIES ARE APPROXIMATE ONLY.
CONTRACTOR SHALL VERIFY THE LOCATION
(HORIZONTAL & VERTICAL) OF THE UTILITIES
PRIOR TO CONSTRUCTION.

SHEET TOTALS				SHEET TOTALS			
EST	FINAL UNIT	DESCRIPTION	ITEM	EST	FINAL UNIT	DESCRIPTION	ITEM
488	LF	RC PIPE (CL 111)(42" IN)	465	534	SY	CUT & RESTORING PAV	400
	LF	TRENCH EXCAVATION PROTECTION	402	680	LF	RC PIPE (CL 111)(24" IN)	464
58	LF	REMOVE EXIST. 12" RCP	464	84	LF	RC PIPE (CL 111)(30" IN)	464
1	LS	REMOVE EXIST. BRICK M.H.	464	48	LF	RC PIPE (CL 111)(48" IN)	464
1	LS	REMOVE EXIST. 2x2 GRATE	464	63	EA	INLET (COMPL)(TY Y-1)	465
1	LS	TIE 24" RCP INTO EXIST. CURB INLET	465	2	EA	MANH (COMPL)(JCT BOX)(TY2)	465
				2	EA	MANH (COMPL)(TY2)	465
				2	EA	INLET (COMPL)(TY Y-2)	465
				1	EA	INLET (COMPL)(TY Y-1)(MOD)	465



BENCHMARK

SCALE:
PLAN 1"=50' HORZ
PROFILE 1"=5' VERT.
LINEAR DIMENSIONS ARE IN FEET UNLESS SHOWN OTHERWISE

S&B
INFRASTRUCTURE, LTD.
Engineering Management Technology

CITY OF KERRVILLE

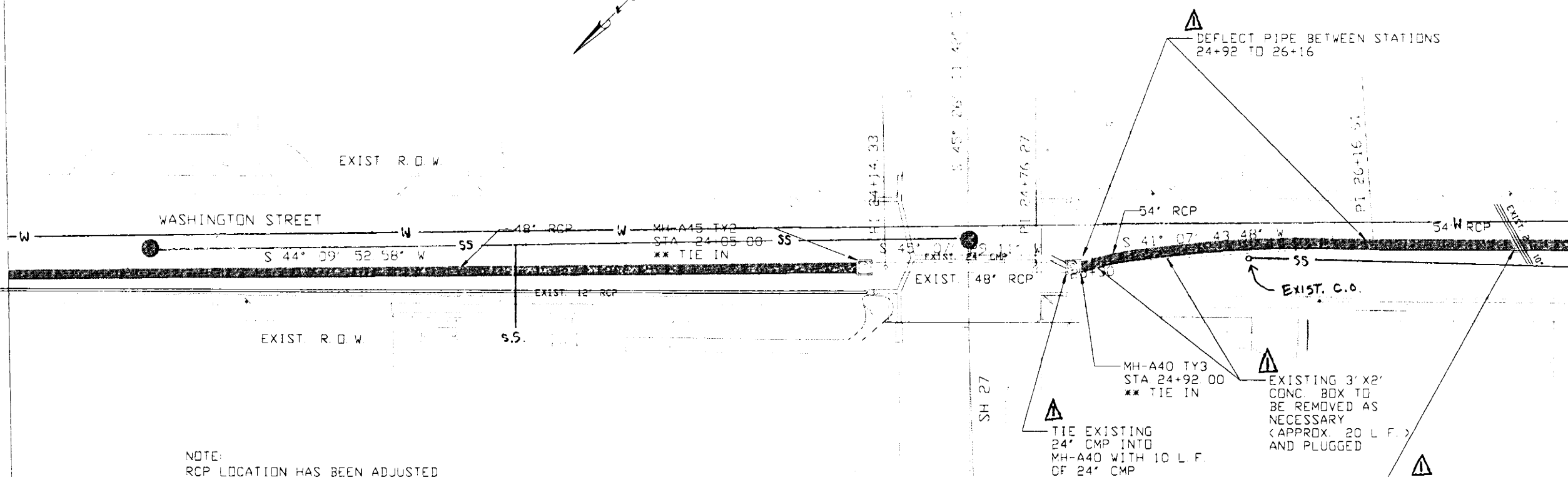
SYSTEM "A"
DRAINAGE LAYOUT
STA. 15+00 00 TO STA. 20+50 00

SHEET 7 OF 4 SHEETS

DESIGNED BY: _____ CHECKED BY: _____ DATE: _____
DRAWN BY: _____ DATE: _____
APPROVED BY: _____ PROJECT NO. 0432900

MATCH LINE STA. 20+50.00

CHANGES MADE BY CITY ENGINEER 1/7/2005
ADDENDUM NO. 2

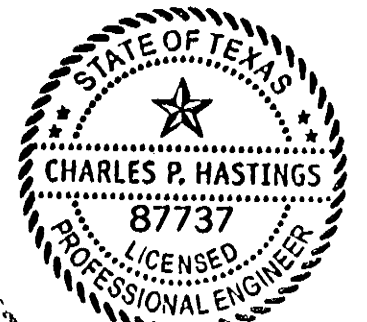


NOTE:
RCP LOCATION HAS BEEN ADJUSTED
BASED ON UTILITY CONFLICTS.
ADDITIONAL ADJUSTMENTS MAY
BE NEEDED IN THE FIELD.

NOTE:
LOCATION & DEPTH OF ALL EXISTING
UTILITIES ARE APPROXIMATE ONLY.
CONTRACTOR SHALL VERIFY THE LOCATION
(HORIZONTAL & VERTICAL) OF THE UTILITIES
PRIOR TO CONSTRUCTION.

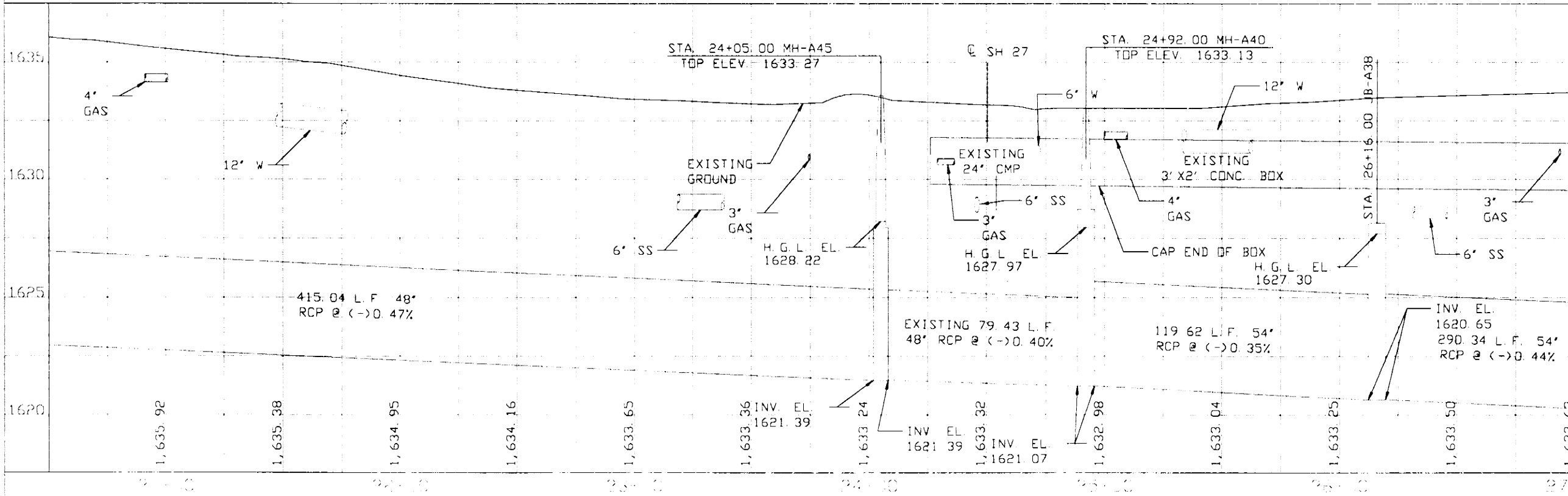
** TIE INTO EXISTING 48\"/>

MATCH LINE STA. 27+00.00



Charles P. Hastings
1/7/05

SHEET TOTALS			
EST	FINAL UNIT	DESCRIPTION	ITEM
554	SY	CUT & RESTORING PAV	400
563	LF	TRENCH EXCAVATION PROTECTION	402
352	LF	RC PIPE (CL III)(48 IN)	465
199	LF	RC PIPE (CL III)(54 IN)	464
1	EA	MANH (COMPL)(TY 2)	465
1	EA	MANH (COMPL)(TY 3)	465
1	EA	MANH (COMPL)(JCT BOX)(TY 3)	465
10	LF	TIE 24" CMP INTO MH-A40	
1	LS	REMOVE EXIST 3X2 BOX AND PLUG	
1	LS	TIE 10" PIPES INTO JB-A38	



BENCHMARK

SCALE:
PLAN 1"=50' HORZ.
PROFILE 1"=5' VERT.
LINEAR DIMENSIONS ARE IN
FEET UNLESS SHOWN OTHERWISE

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Engineering Management Technology

CITY OF KERRVILLE

SYSTEM "A"
DRAINAGE LAYOUT
STA 20+50.00 TO STA. 27+00.00

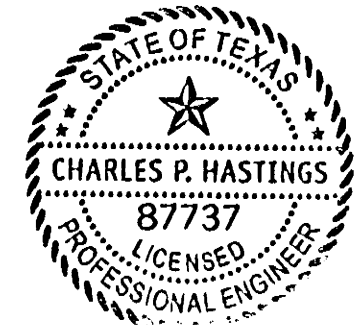
SHEET NO. 8

SHEET 2 OF 4 SHEETS

DESIGNED BY: _____ CHECKED BY: _____ DATE: _____
DRAWN BY: _____ CHECKED BY: _____ DATE: _____
APPROVED BY: _____ DATE: _____ PROJECT NO. 0432900

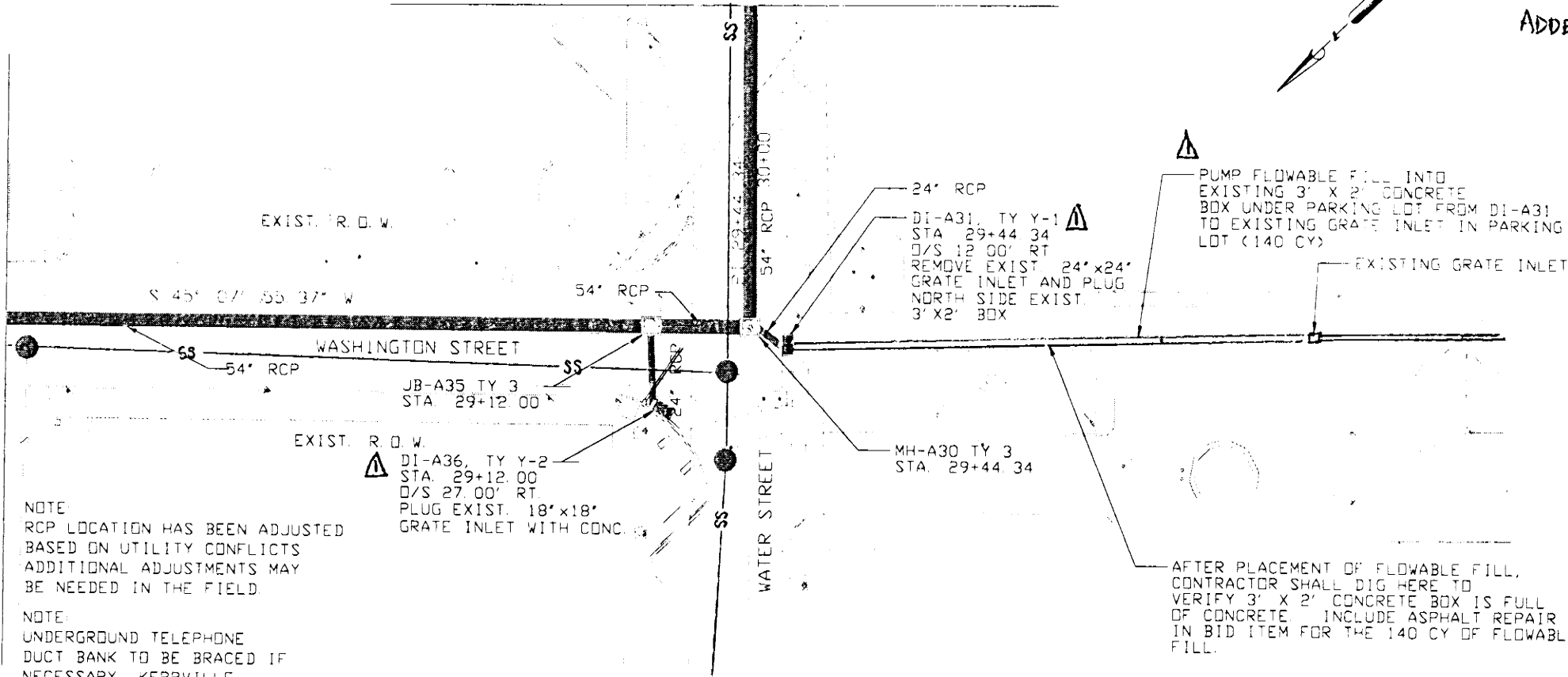
MATCH LINE STA. 30+50.00

CHANGES MADE BY CITY ENGINEER 4/7/2005
ADDENDUM NO. 2



Charles P. Hastings
4/7/2005

MATCH LINE STA. 27+00.00

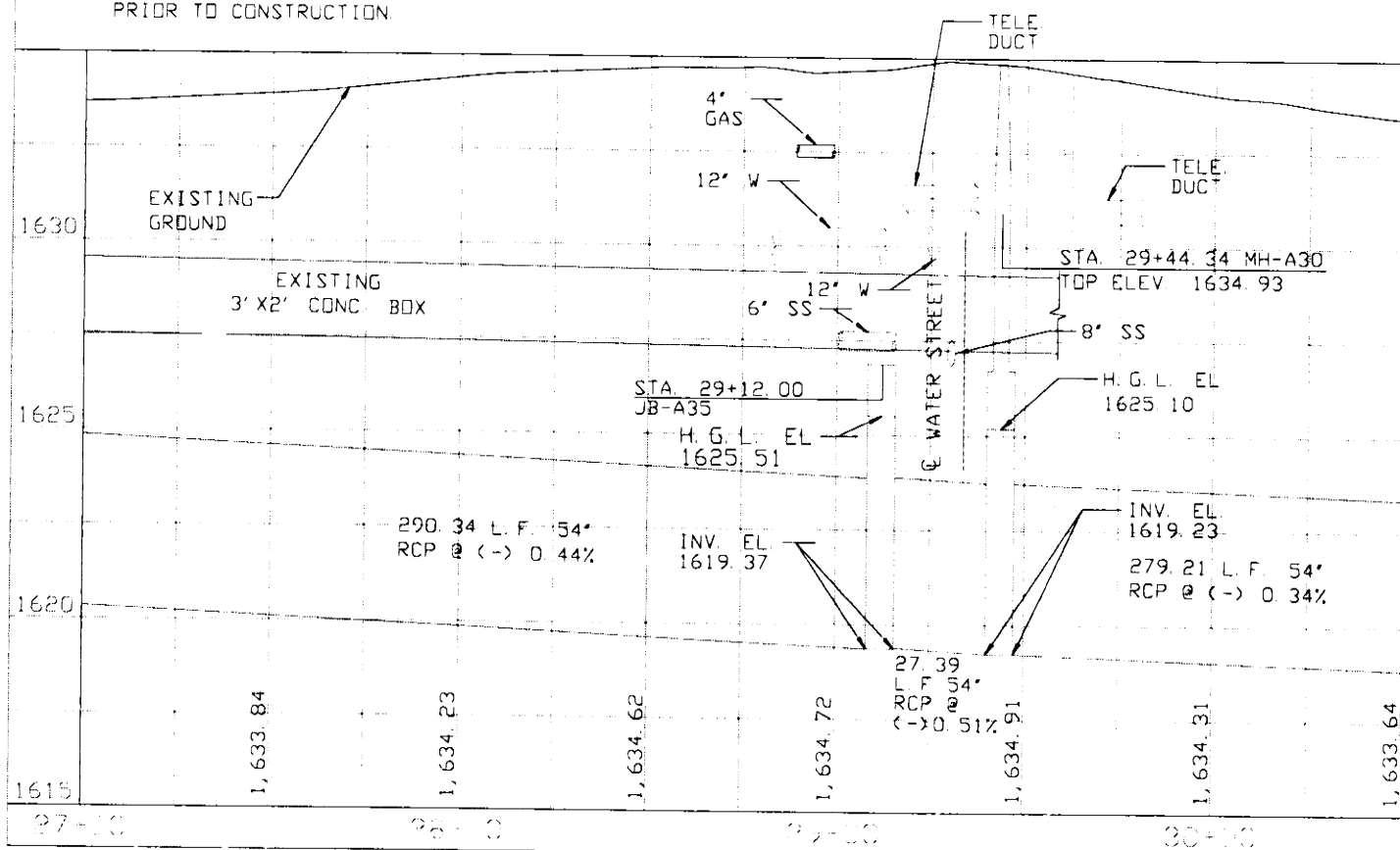


NOTE:
RCP LOCATION HAS BEEN ADJUSTED
BASED ON UTILITY CONFLICTS
ADDITIONAL ADJUSTMENTS MAY
BE NEEDED IN THE FIELD

NOTE:
UNDERGROUND TELEPHONE
DUCT BANK TO BE BRACED IF
NECESSARY. KERRVILLE
TELEPHONE COMPANY TO
BE CONTACTED PRIOR TO
INSTALLATION OF MH-A30.

NOTE:
LOCATION & DEPTH OF ALL EXISTING
UTILITIES ARE APPROXIMATE ONLY
CONTRACTOR SHALL VERIFY THE LOCATION
(HORIZONTAL & VERTICAL) OF THE UTILITIES
PRIOR TO CONSTRUCTION

SHEET TOTALS			
EST	FINAL UNIT	DESCRIPTION	ITEM
370	SY	CUT & RESTORING PAV	400
350	LF	TRENCH EXCAVATION PROTECTION	402
43	LF	RC PIPE (CL 111)(24 IN)	464
335	LF	RC PIPE (CL 111)(54 IN)	464
1	EA	INLET (COMPL)(TY Y-1)	465
1	EA	INLET (COMPL)(TY Y-2)	465
1	EA	MANH (COMPL)(TY 3)	465
1	EA	MANH (COMPL)(JCT BOX)(TY 3)	465
1	LS	REMOVE 18"x18" GRATE INLET	
1	LS	REMOVE 24"x24" GRATE INLET	



BENCHMARK

SCALE:
PLAN 1"=50' HORZ.
PROFILE 1"=5' VERT.
LINEAR DIMENSIONS ARE IN
FEET UNLESS SHOWN OTHERWISE.

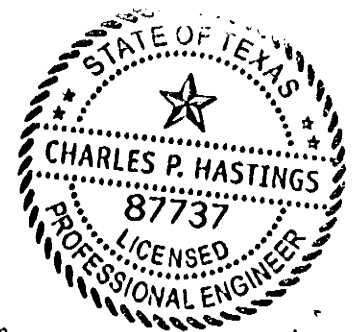
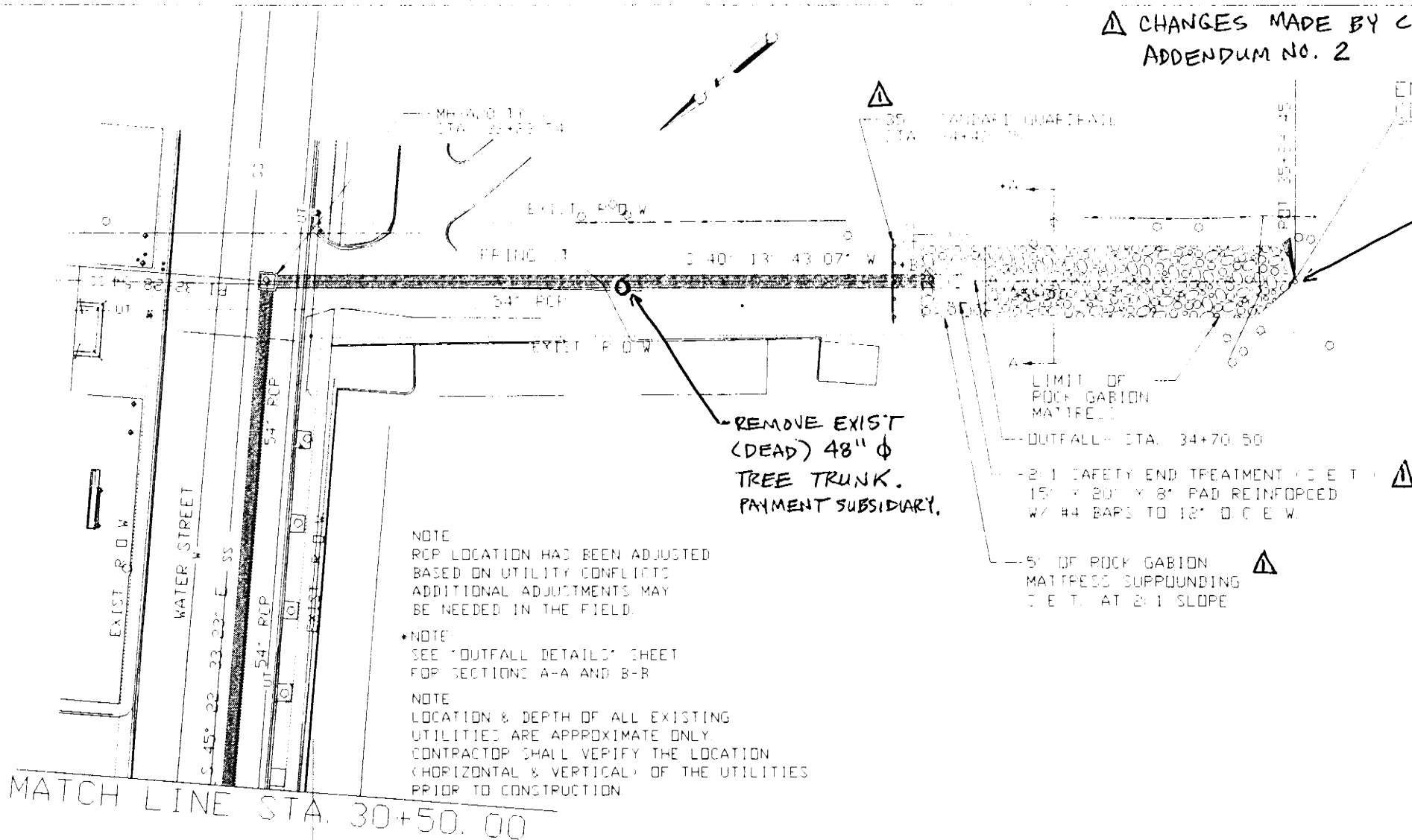
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Engineering Management Technology

CITY OF KERRVILLE

SYSTEM "A"
DRAINAGE LAYOUT
STA. 27+00.00 TO STA. 30+50.00

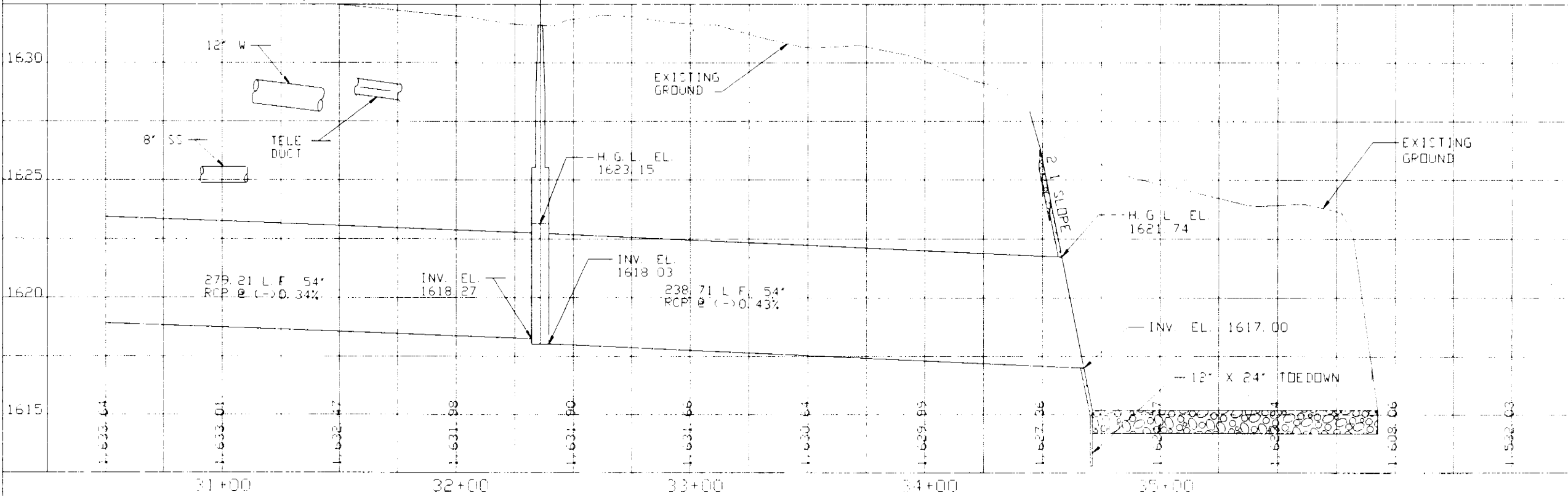
SHEET 3 OF 4 SHEETS
DESIGNED BY
DRAWN BY
APPROVED BY
CHECKED BY
DATE
PROJECT NO. 9432900

△ CHANGES MADE BY CITY ENGINEER 4/7/2005
ADDENDUM NO. 2



Charles P. Hastings
4/7/2005

SHEET TOTALS			
EST.	FINAL	UNIT	DESCRIPTION
311		SY	CUT & RESTORING PAV.
421		LF	FRENCH EXCAVATION PROTECTION
415		LF	PC PIPE (CL III) (54 IN)
1		EA	MANH (COMPL) (TY 3)
370		SY	GABION MATTRESS (GALV) (12 IN)
9		SY	CL C CONC (S.E.T.)
35		LF	GUARD RAIL



BENCHMARK

SCALE:
PLAN 1"=50' HORZ.
PROFILE 1"=5' VERT.
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FEET UNLESS SHOWN OTHERWISE

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CITY OF KERRVILLE

SYSTEM "A"
DRAINAGE LAYOUT
STA 30+50.00 TO STA 34+00.00

SHEET 4 OF 4 SHEETS

DESIGNED BY: _____ CHECKED BY: _____ DATE: _____
DRAWN BY: _____ CHECKED BY: _____ DATE: _____
APPROVED BY: _____ DATE: _____ PROJECT NO. 1432003